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# THE GEOGRAPHICAL REVIEW

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## THE WORK OF FRANCE IN MOROCCO

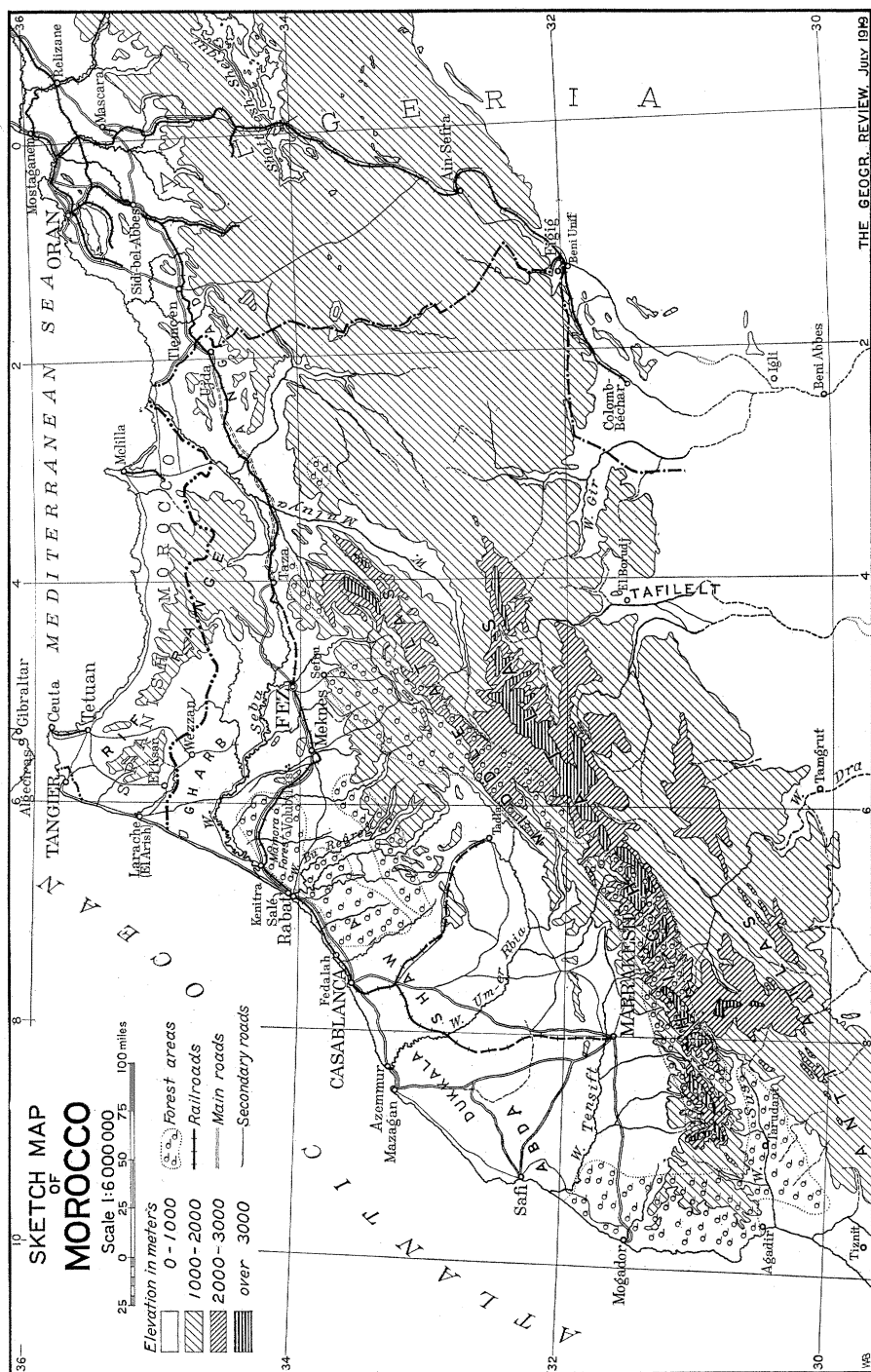
By ALFRED DE TARDE

Editor of *France-Maroc*

Morocco of the old days is passing. Pierre Loti's sleeping Maghreb, "impenetrable to things that are new," awakens to a vitality that a recent American visitor has declared reminiscent of the Far West. This new Morocco is the creation of one man—General Lyautey. Named Resident General in April, 1912, after the signing of the French protectorate treaty with Morocco, General Lyautey has held this office without intermission save for four months (December, 1916-April, 1917) when called to the Ministry of War.

### POLITICAL EVENTS

To appraise his work at its proper value the recentness of the events must be borne in mind. It was in 1907 that the first French troops were disembarked at Casablanca to establish order and to protect the European residents. At the time Morocco was under the régime of the Act of Algeciras (1906), that is under an international protection, with policing duties specially devolving on France and Spain, an agreement, however, which proved impotent to suppress anarchy. France found herself compelled to resort to military intervention, thereby arousing the opposition of Germany. There followed a series of events concluded by the accord of November 4, 1911, with Germany and, shortly afterwards (March 30, 1912), by the above-mentioned protectorate treaty with Morocco. Seven years have elapsed since the date which gave France the right to act in Morocco—that is in her sphere of influence as delimited by previous agreement with Spain. At the time when France took up the work of political and economic organization everything remained to be done—restoration of the disordered administration; establishment of the bases of economic development; installation of medical, educational, and other service; reform of the land system. At the same time peace had to be



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FIG. 1.—Sketch map of Morocco showing the natural features and the means of communication. Scale, 1:6,000,000.

assured and a rebellious population pacified by the combined application of force and persuasion.

The task was immense in itself. It was rendered still more difficult by the course of external events. Two years after France had taken up her task the European war broke out. Should the work in Morocco be suspended? So some thought in the stress of the first days. There was a call for immediate abandonment of all the country except the coasts. But General Lyautey, with a clear outlook on the future, answered differently. He despatched to France the forces summoned for national defense, guaranteeing to hold Morocco with the remainder. As a protective shield he flung the last of these active troops to the borders of the pacified territory, trusting the peace of the interior to a policy of public works and general development.

This policy he has applied without relaxation since August, 1914. Its success is patent, for not only has Morocco remained peaceable during the war despite the efforts of German propaganda but the zone of pacification has been extended. Today the occupied area exceeds 250,000 square kilometers where at the outbreak of the war it was 180,000 square kilometers.<sup>1</sup>

General organization of the country has kept pace with military events. The advance of the army has been strikingly co-ordinated with the civil work, which we now proceed to discuss. Morocco affords a convincing example of what can be accomplished through the vigorous prosecution of a policy well defined and firmly fixed along broad lines.

### THE CIVIL CONQUEST

The fundamentals of this policy must briefly be noted, for they illuminate the entire field of French work in Morocco—even more, they reveal the difference between that nation's general colonial policy, sometimes, but unjustly, described as French imperialism, and German imperialism. In a tractate "Le rôle colonial de l'armée," written in 1900 after experience gained in Madagascar, General Lyautey laid down certain principles of colonial warfare. Principle and method are expressed in the short formula: *L'armée aux colonies, c'est une organisation qui marche.*

Occupation is not effected for the sole profit of the conqueror but has due consideration for the conquered. The advancing army leaves behind it elements of established order; extension of conquest and extension of order are in fact synonymous. In colonial warfare the offensive has a particular character. It takes careful cognizance of the sources of future well-being and limits destruction to a minimum. The village taken at the point of the sword today may be the market of tomorrow. Operations are naturally conducted on different lines when the campaign is merely

<sup>1</sup> See the note on "The French Penetration of Morocco," with map, in the Geographical Record in the present number. For a recent general article on Morocco under the French régime, see also: A. Brandes, Marokko, *Tiidschr. Kon. Nederl. Aardrijks. Genoot.* Vol. 36, 1919, pp. 306-327, with map.—EDIT. NOTE.



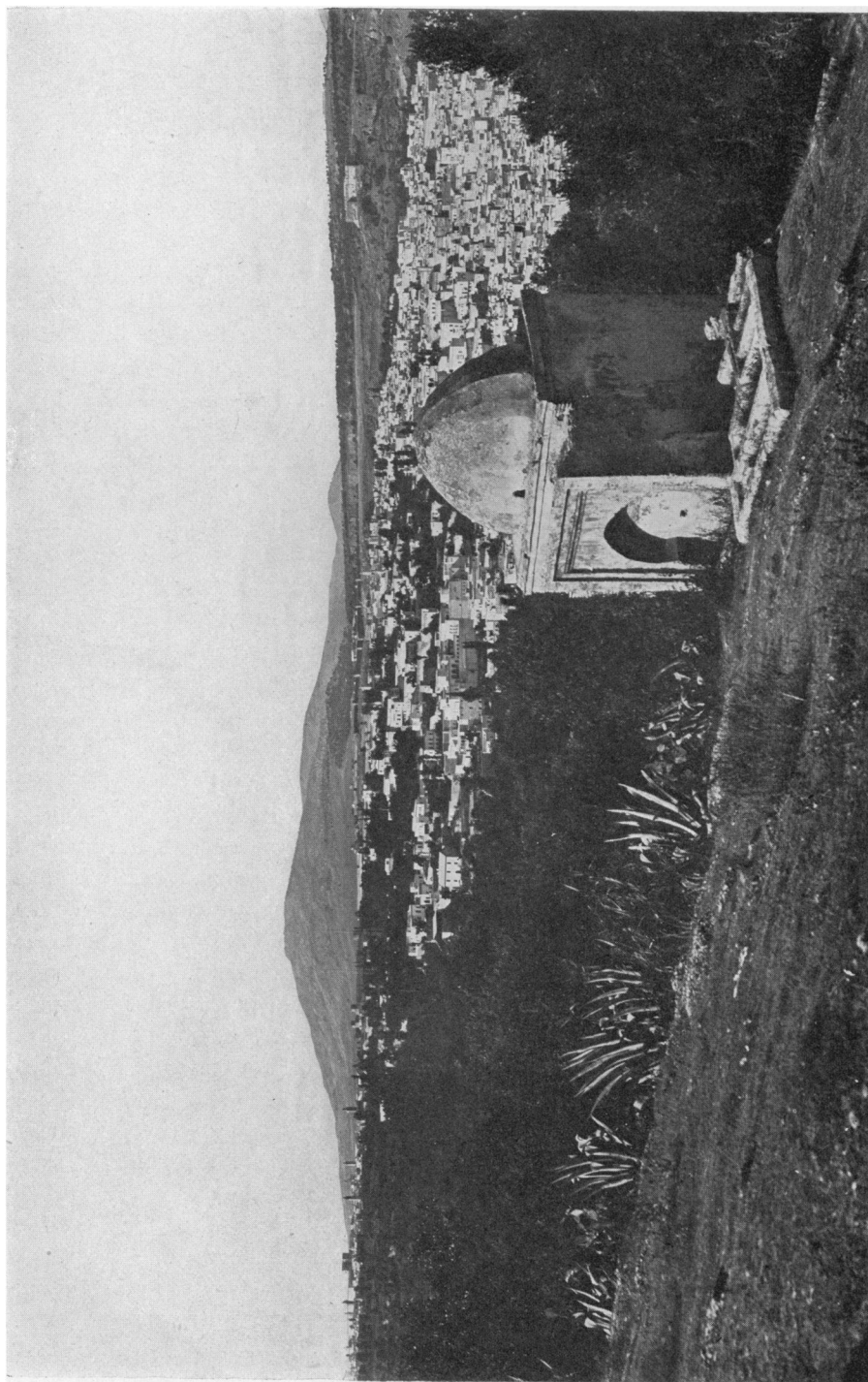


FIG. 2—Panoramic view of Fez, the most beautiful and interesting city of Morocco. Since its foundation at the beginning of the ninth century this "holy city" has played an important part in the history of the country. "How large, how populous" its state in the early sixteenth century Leo Africanus has described in his history of Africa (*Hakluyt Soc. Publs.*, First Series, Vols. 92, 93, 94, 1896). The location of the city in the strategic and commercial passageway connecting the Mediterranean and the Atlantic between the Rif Range and the Middle Atlas ensures its future progress.

one of invasion and conquest from those employed in a campaign to open a road of future commercial penetration. Morocco furnishes an excellent illustration in the narrow-gage lines constructed for military purposes but not the less adaptable for subsequent commercial use. In the building of such lines connection between the chief economic centers has been kept in view.

Under this conception the army is not merely a unit designed for combat but a complete society in miniature. It embraces not only soldiers but workmen of all trades—masons, carpenters, laborers, farmers, teachers, doctors. In Morocco, for instance, the army has constructed posts, built roads and bridges, and established railways and telephone lines—in fact has completely prepared the way for economic organization.

In place of the old idea of conquest has been substituted that of co-operation with the native peoples. The occupying force, having in mind pacification and enrichment of the country for the natives no less than itself, has respect for the established authority. Instead of wasting its efforts to replace existing organizations by new systems naturally mistrusted by the people, it is satisfied to re-enforce them by wise control.

#### THE ADMINISTRATIVE ORGANIZATION

When the protectorate treaty was signed Morocco was submerged in anarchy. The power of the Sultan was on the wane; most of the country with the exception of Fez, Meknes, and the coast was in rebellion against him. After affixing his seal to the treaty Sultan Mulai Hafid abdicated, and the Makhzan (Moroccan government) nominated his brother, Mulai Yusef, as his successor.

The Sherifian Empire is a theocratic state. The Sultan, as "Descendant of the Prophet", enjoys absolute power; his religious authority is one with his political authority, as the religious law is not distinguished from the civil law. The Sultan governs with the aid of his ministers, or viziers, at the head of whom is the Grand Vizier, charged with internal affairs. The entire administration of the country proceeds from the court of notables who assemble every morning in the Sultan's palace, each sitting in his little *benika*, or audience chamber, opening off the principal court.

This administration has been preserved in its original form by the French authorities. The Sultan retains all his prerogatives; he exercises his office with all its traditional apparatus. The personnel of the palace, the Sherifian family, and the royal harem are maintained by a civil list of 3,500,000 pesetas. The viziers also continue their functions according to past custom. But certain of the old offices of the Makhzan have become obsolete; for example that of the Vizier of Foreign Affairs. His seat is now filled by the French Resident General, the sole intermediary between the Sultan and foreign powers. Furthermore, several technical depart-

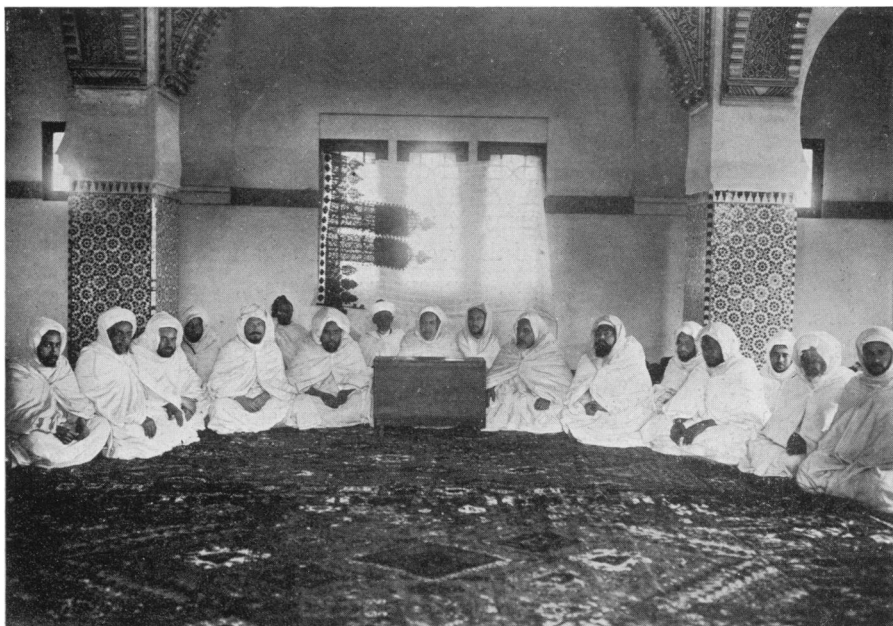


FIG. 3

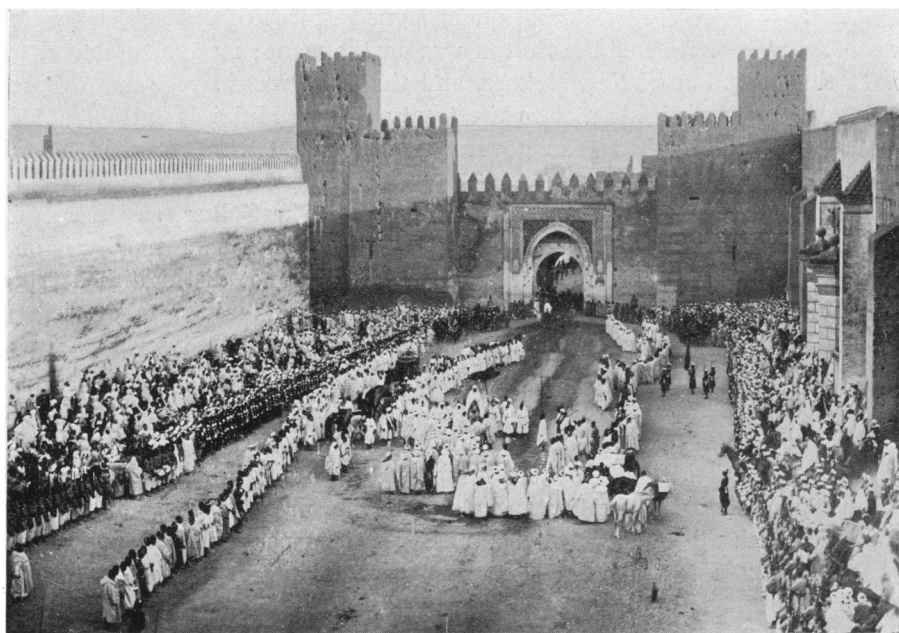


FIG. 4

FIG. 3—The administrative council, or Makhzan, of the Sherifian Empire, one of the last vestiges of the régime of the Middle Ages. While the protectorate has preserved the original form and apparatus of government, new offices provide for the development of the country.

FIG. 4—The Sultan receiving presents according to custom from townspeople and tribesmen. The ceremonial of such occasions is described by Aubin in "Le Maroc d'aujourd'hui" (1904).



FIG. 5



FIG. 6

FIGS. 5 AND 6—Rabat-Salé, twin towns at the mouth of the Bu-Regreg. Fig. 5 shows the port of Rabat, now in the course of improvement. The opening of new quays has already augmented the trade even during the war. Facilities will be greatly enhanced by the projected dredging of a channel across the estuarine bar. Fig. 6 shows a market at Salé. Everywhere in Morocco, where modern trade methods are just appearing, the periodic markets and fairs are scenes of great activity socially and politically as well as commercially.

ments have been created—such as those of Public Works, Public Lands, Finance, Agriculture, and Postal Service. These are entrusted to French functionaries, who thus in reality serve as Sherifian ministers. Administration of the towns remains with the pashas, delegated by the Sultan, and those of the tribes with the *kaid*s.

As remarked above, in the native system of justice the religious and civil law are identified. In all personal matters, such as marriage and inheritance, judgment is given according to the customary law (*shrâa*) drawn from the Koran. The judge (*kadi*) himself receives official recognition only under the appointment of the Sultan.

What, then, is the rôle of France in Morocco? That of supervision only. By the side of the organizations maintained or restored authorities have been installed who are charged with powers of surveillance or are authorized if necessary to furnish suggestions and advice. Acting side by side with the Makhzan is the Secretariat General with its three departments—of the Interior, of Justice, and of the Religious Estate (*habûs*, inalienable properties)—which are in permanent relation with the corresponding ministries of the Makhzan. Associated with the pashas, the *kaid*s, and the *kadis* are the intelligence officers (*officiers de renseignements*) for the territories still under a military régime and the civil controller for the pacified regions under civil administration. We must pause for a moment over the former office for it is the most distinctive feature of the French protectorate system. Under other forms it also exists in Tunisia and Algeria.

The officer of this intelligence service is at once a military man, a diplomat, and an administrator. His rôle, especially on first installation, is to become acquainted with the people, to gain their confidence, to make them forget the call of the old freedom in the advantages of their present situation. At the same time he must sow the seed of pacification in the unconquered territory. Later his rôle becomes more administrative and then he acts as counselor. He reorganizes justice and instruction, establishes medical assistance, aids the agriculturists. The service thus calls for a man of unique ability who is furthermore a master of *finesse*; he must be omniscient—to the extent of having a knowledge of Berber dialects as well as a perfect knowledge of Arabic; but most of all he must have an understanding of the workings of the native mind. This service may be described as the keystone of France's Moroccan policy.

It may also be added that in the large towns the native municipalities (*medjless*) have been reorganized and that these assemblies, presided over by a French officer, conduct their own affairs. Among the tribes the assemblies of headmen (*djemâa*) have likewise been reconstituted, and to them great powers have been entrusted.

This liberalism in the political administration of the country is not a feint. It is implicit in the objective of the protectorate—the development

of the territory. Industrial and commercial life can only take root and flourish under conditions of general security.

### ECONOMIC EQUIPMENT; THE PORTS

One of the first measures in establishing the protectorate was the drawing up of a scheme of economic policy, including a program for public works. Though the pacified area was then of small extent, the program was large in scope, for it looked to the future and, moreover, the order



Fig. 7—Airplane photograph of the eastern, or European, section of Casablanca, the first port of Morocco.

was to move quickly. The problem of the ports, the economic keys to the country, naturally demanded first attention. To avoid dissipation of efforts and resources there was adopted the principle of "one major port, several secondary ports." Choice of the chief port fell on Casablanca. Thither European commerce was directed for the most part, and interests acquired there were already considerable; furthermore it is the natural outlet for the rich regions of the Shawia (Fr., Chaouia) and Tadla. The project for Casablanca, for which the sum of 44,000,000 francs was appropriated, includes a great pier 1,900 meters long, which shall afford protection against the heavy seas characteristic of most of the western coast of Morocco, and a second pier 1,550 meters long transverse to the first. The anchorage area thus enclosed will measure some 140 hectares with a depth of over ten meters. Provision is also made for enlargement. Inside the

outer port is a small harbor,  $9\frac{1}{2}$  hectares in extent, for small vessels.<sup>2</sup> Construction of the larger pier, the principal part of the work, was begun first; today it is half completed, progress having been slackened through the difficulty of obtaining material, especially cement. The small inside harbor is already in working order. When the entire plans are completed Casablanca will be able to accommodate a traffic of 1,500,000 tons (metric). Is this an overestimate? It hardly seems so, for the present traffic in spite of the war exceeds 200,000 tons, and the progress accomplished in the period before the war is most encouraging, as is shown by the following figures:

1910.....	43,336 tons
1911.....	68,632 "
1912.....	98,536 "
1913.....	241,800 "

In value of merchandise the progress of the commercial movement is not less suggestive:

1910.....	24,310,000 francs
1911.....	41,915,000 "
1912.....	63,280,000 "
1913.....	79,371,000 "
1916.....	107,963,000 <sup>3</sup> "

The future of Casablanca is regarded with satisfaction by those who appreciate the importance of its situation on the Atlantic coast. When Casablanca is joined by rail to Tangier on the one hand and Oran on the other it will become a terminus of an Old World line to Central and South America—at least until the Trans-Saharan line reaches Dakar—for travelers who wish to shorten their journey by several days.

Besides the development of Casablanca the program of public works includes improvement of the local ports of Kenitra, Rabat, and Fedalah in the north, and of Mazagan, Safi, and Mogador in the south.

Rabat and Kenitra are neighboring ports, the former situated on the estuary of the Bu-Regreg, the latter 10 kilometers from the mouth of the Sebu. Both ports are closed by bars which permit only the passage of boats drawing three and a half meters. In each case a dredged channel will be protected by parallel jetties thrown out to sea. The case of Kenitra is especially instructive. This small port is a result purely of human determination. In 1912 it was nothing more than a *kasba*, or Moroccan citadel, lost on the desolate bank of the Sebu; it had not even a boat to suggest a port. But its situation and the even depth of the river attracted the attention of General Lyautey, and he conceived the plan of diverting to this point all the important commerce of the plain of Sebu and of Fez which, for lack of a natural outlet, had been directed northwards to the profit of the Spanish port of Larache.

<sup>2</sup> See the plan in the appendix to *La Revelière: Les énergies françaises au Maroc*, Paris, 1917.

<sup>3</sup> Figures for 1916 from H. Dugard: *Le Maroc de 1917*, Paris, 1917, p. 171.



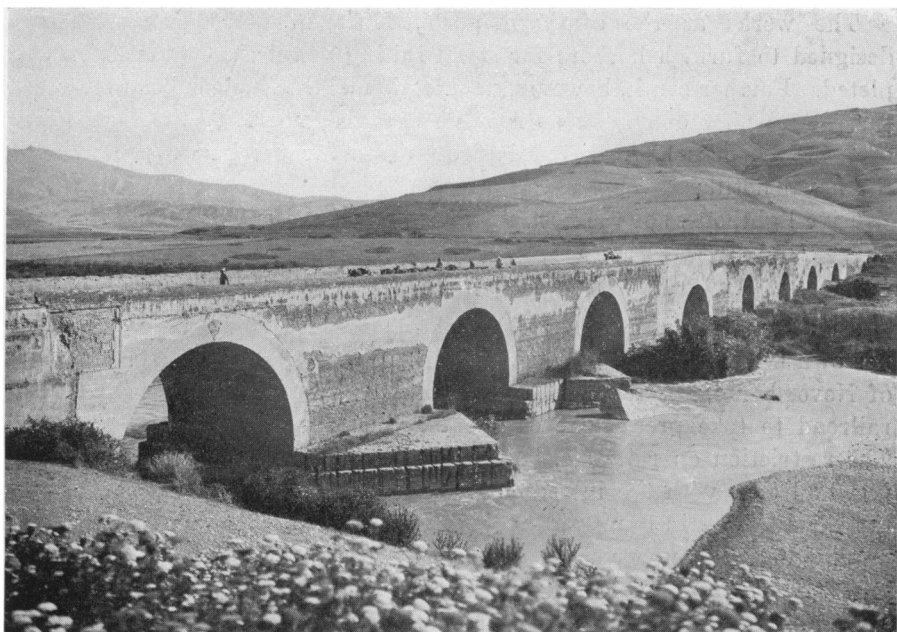


FIG. 8



FIG. 9

FIG. 8—The Sebu near Fez, with one of the few bridges in Morocco. Difficulty of importing requisite material during the war has prevented bridge building from keeping pace with the notable progress in road building.

FIG. 9—A pioneer railway in Morocco. These narrow-gage lines (60-centimeter), primarily designed for military purposes, have been turned over to public service with much profit to commerce.



The works at the southern ports, Mazagan and Mogador, simply designed to furnish harbors for small sailing vessels, are practically completed. Farther south, however, pacification of the Sus has been too recent for the opening of a port at Agadir, though since 1917 the Department of Public Works has effected improvements for the better protection of the naval flotillas.

Five lighthouses of the first class have also been erected along the coast.

### ROADS

In the matter of railroad construction France was not free to follow her own bent. German jealousy had insisted on the addition to the treaty of November 4, 1911, of a clause requiring the international Tangier-Fez railroad to take precedence over other lines in the French protectorate. The restriction on railways, however, gave special impetus to road building, and this, with the introduction of the automobile, has proved one of the chief factors in the rapid opening up of the country.

The highway program of 1913 included a road system aggregating 2,500 kilometers. At the beginning of the war only 50 kilometers of metaled roads had been constructed; today 1,600 kilometers are open to traffic, and another 600 kilometers will shortly be ready. During the war no work has been pushed forward more vigorously, for, conformably with General Lyautey's original plan, road building serves the double purpose of economic development and pacification. For the most part it is carried on with the help of native labor, which is thus afforded an additional source of livelihood.

Part of the system, however, has not yet been completed for lack of special material. This is the case with the large bridges. With the exception of a stone bridge across the Sebu near Fez and an iron bridge across the Um-er-Rbia, the rivers have been bridged by temporary structures. In addition a considerable amount of work has been done in improving the native roads where the situation has not permitted regular road building. This work, executed in general by the army, again serves the double purpose of military and economic ends. To the 1,600 kilometers of regular highways may thus be added 2,000 kilometers of roads practicable for wheeled traffic.

### RAILROADS

Reference has already been made to the restriction on railroad development. This has been particularly annoying in view of the impediments encountered in the Tangier-Fez project, difficulties in the way of surveys and preliminary work and in the formation of a Franco-Spanish company. The first sections were not contracted for till 1917. Work on the line has now begun. Its total length will be 310 kilometers, of which 210 lie in the French zone.



FIG. 10



FIG. 11

FIGS. 10 AND 11—The old and the new in Moroccan agriculture. To the primitive plow are harnessed any available animals—and even women. "It is not unusual to see a camel, an ass, and a woman drawing the plow," says Bernard (*"Le Maroc,"* 1913, p. 170). The introduction of modern agricultural machinery is, however, beginning to transform Moroccan agriculture.

A system of commercial lines for the protectorate has now been elaborated; agreement for construction and exploitation has been drawn up between the protectorate and two large French companies and simply awaits parliamentary sanction. The gage will be standard (1.44 meters), and the length will aggregate 870 kilometers. It will unite all the large towns—Fez, Meknes, Rabat, Casablanca, Marrakesh (see map, Fig. 1).

But, while awaiting the great lines of the future, Morocco has not been absolutely deprived of railroad facilities. It possesses a system of so-called Decauville lines (60-centimeter gage), a construction not interdicted by the treaty convention. The first lines of this type were started in September, 1912, and rapidly pushed forward, until today they aggregate 850 kilometers. At first reserved for military purposes, the lines have been opened to the public for passenger and freight traffic since March, 1916. The promptness of commerce to profit by the facilities thus offered, in spite of the inevitably high price of transport, is proof of the country's progress, as is suggested by the following figures, which exclude military transport. For the year 1917 and on the system in western Morocco only (622 kilometers), the receipts were 4,296,000 francs; the number of tons of merchandise transported, 43,500; the number of passengers carried, 205,000.

Will the utility of this narrow-gage system disappear with the construction of the main railroads? No; for the most part it can be used to supplement them, serving the same purpose as local lines in relation to trunk lines.

### THE NEW TOWNS

The spontaneous birth and rapid growth of European towns in Morocco has placed before the protectorate a series of interesting problems that call for modern methods of solution.

The unrestrained tendency of the European town growing up beside the native town is to overshadow, to suffocate, and finally to replace its victim. To avoid this unfortunate sequence General Lyautey has laid down an absolute rule that the native and the European towns shall be separated, a plan adopted by the English in India. The policy is in accord with moral and hygienic principles. In an intimate mixture of two such dissimilar civilizations it is rather the vices than the virtues that flourish. On hygienic grounds the European should take up his residence away from those centers of infection, the Moroccan towns, with their narrow, dirty, ill-ventilated streets.

In the town plans of the future the first care will be to set aside a strip of ground separating the European and native sections, and on this strip all building will be prohibited. The work involved in such town planning is arduous and detailed; it calls for the imagination and taste of the artist, the science of the architect and the sanitary engineer. Its direction has

been entrusted to a specialist, M. Prost, who lately drew up the plans for the extension of the city of Antwerp. The task, formidable enough when dealing with an entirely new town, is much more complicated in the case of a half-built town such as Casablanca, where construction proceeded in a haphazard manner at the hands of speculators in the first days of the protectorate. Established interests must also be taken into account. At present plans for the extension of the chief towns of Morocco—Casablanca, Rabat, Fez, Marrakesh,<sup>4</sup> Meknes—are practically ready, and some of them have already been announced. These prohibit all building within the



FIG. 12—The well, *noria*, of a Moroccan farm.

limits of the future city that does not conform with the established plan.

To enforce the execution of these plans special legislation has been necessary. A law of expropriation establishes the maximum value of the remaining lands for the calculation of indemnity. Another new measure—and a very advanced piece of legislation—provides for the formation of syndicated associations of proprietors. This permits the grouping of the neighboring proprietors of the same parcel of land for a redistribution of the land among themselves in a manner more conformable with the general interest. The experience gained in the preparation of these plans of extension and of the syndicated associations should furnish useful data for the recon-

<sup>4</sup> For an account of the building of a European town, as exemplified at Marrakesh, see Georges Aimel: *Le Guélliz-Marrakech: Naissance d'une cité au Maroc*, *France-Maroc*, March, 1919, pp. 60-63.

struction of the towns and villages in the devastated area of northern France.

### AGRICULTURE

Morocco, like Algeria and Tunisia, of which it is the continuation, is above all a country of agriculture and stock raising. The Atlantic littoral, where the humid oceanic climate prevails, especially offers lands of remarkable productivity. It is difficult, however, to estimate the exact extent of these fertile lands. The total area of French Morocco is 42,000,000

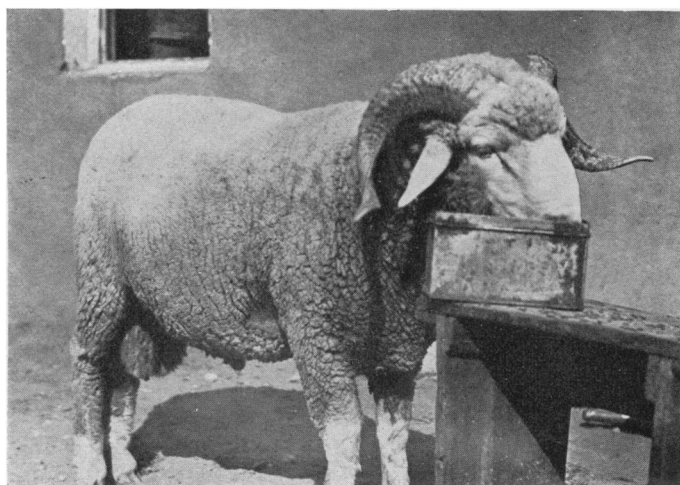


FIG. 13—A ram of Tadla, merino type. Sheep rearing in Morocco has a great future. The merino, appreciated for its fine wool and delicate meat, appears to have originated here.

hectares, but this includes vast desert stretches unavailable for cultivation, at least under present conditions. Such are the plain which extends to the south of Marrakesh, the plateaus of Taflelt, and the dunes on the Algerian boundary. The extensive mountainous areas of the Middle Atlas and the High Atlas and the forest and marsh areas must also be deducted.

The regions most favorable for cultivation are the plain of the Shawia around Casablanca, that of the Gharb to the north of Kenitra, the valley of the Sebu (plain of the Beni-Mtirs), the Dukkala south of Mazagan, the Abda about Safi—all these in western Morocco; in eastern Morocco are the plains of Trifa and Angad.<sup>5</sup>

In these plains, distributed in patches, occurs the famous *tirs*, an argillaceous black earth resembling the *chernoziom* of Russia. Unworkable during the rains, cracked and parched during the dry season, and demanding much labor, the *tirs*, rich in potash and nitrogen, is yet possessed of

<sup>5</sup> On the zones in relation to climate see A. G. Ogilvie: Morocco and Its Future, *Geogr. Journ.*, Vol. 39, 1912, pp. 554-575.

a marvelous fertility. It is especially adapted to cereal cultivation—wheat, barley, maize, and sorghum being the chief crops produced thereon.

The native Moroccan cultivates *in extenso*, tilling the lands easiest to work in a superficial fashion with the most primitive of appliances. The wooden plow that he uses only scratches the soil to a depth of six or seven centimeters. He never manures his land and knows nothing of the rotation of crops. Each year he chooses a new field, allowing last year's to remain fallow. The harvest is reaped by sickle or knife; animals tread out the grain from the chaff, which is winnowed by the wind.

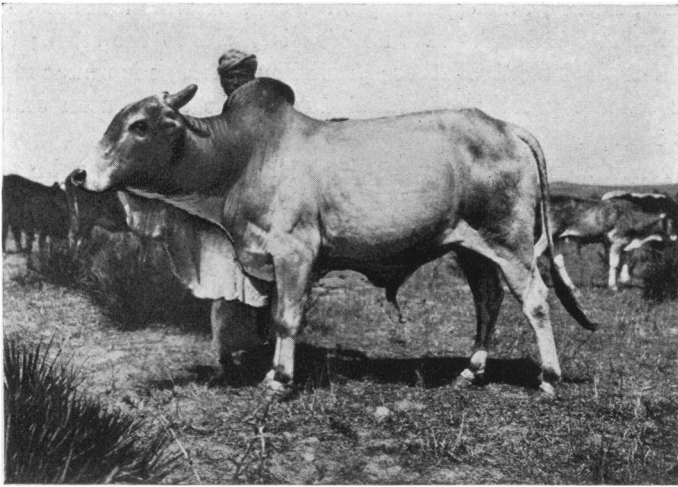


FIG. 14—An Indian zebu. The Indian zebu has been introduced into Morocco for crossing with native cattle, an experiment that has proved successful in Algeria, Tunisia, and Senegal. This is one of the ways in which the Agricultural Service created by the protectorate is endeavoring to effect improvement. Morocco has always been pre-eminently a pastoral country, but under indifferent handling most breeds of stock had deteriorated.

France seeks to bring about improvement of these primitive methods by education and supervision, all the while guarding against too abrupt a change of the ancient ways. Little by little the native adopts modern methods and equipment. A certain number of European colonists—there were only 200 before the war because of the difficulty of purchasing land and the uncertainty of title—scattered through the agricultural districts furnish examples of modern agriculture. Already agricultural machinery, including even motor tractors, is employed by some of the natives. The *kajids* of the Shawia, for example, have bought harvesting tractors for their properties.

To afford more direct assistance to the native the protectorate has established "*Sociétés Indigènes de Prévoyance*," which, provided with a small capital, buy selected seeds to advance to the native cultivator. The plant species cultivated in Morocco are in general of very poor quality. Before

the coming of the French all the wheat grown was of the hard variety unsuitable for making flour: the soft variety has now been introduced. In respect to other cereals and vegetables and fruit trees the Sociétés de Prévoyance have also replaced the existing kinds by better varieties yielding a larger return. Agricultural experiment stations are working along this line to determine the species best adapted to soil and climate and are also trying out results with a number of plants not yet acclimated in the country.

Similar methods are being employed for the regeneration of the animal species and for better practices in stock raising. Morocco is rich in cattle, asses, mules, horses, and especially in sheep, of which the flocks are estimated at 20,000,000 head. But no care is given to the stock; there is no shelter against inclement weather; provision of forage is unknown, although the flocks become greatly emaciated during the dry season and epizootic disease is rife.

The French stock breeding service strives patiently against these bad conditions. It offers bounties for breeding; it has taken up the question of water supply and has sunk wells in the pastoral regions. Great help is given by the traveling veterinary inspectors, who visit the markets and *duars*, even going into the unpacified regions and gratuitously giving advice on the care of the stock.

Experimental farms, such as that of Fez, complete this work of agricultural education. Mention, however, should also be made of the steps taken to revive certain abandoned crops of much importance, such as the mulberry and cotton. Imported cotton goods have now replaced the native industry, and, with the exception of rare fields in the Sus, cotton cultivation has been abandoned. But there are hopes of resuscitating it. Experiments already made give promise for the future. Success will depend especially on irrigation facilities, an abundant labor supply, and cheap transportation; these conditions have not yet been realized in Morocco.

#### COLONIZATION

In Algeria the government had adopted the *cantonnement* system, by which the tribes were relegated to territories judged sufficient, and the rest of the country was given over to colonization.

Such a measure would not be in accord with French policy in Morocco, with its respect of native rights. Beyond direct purchase of land from the natives, territorial opportunities for colonization are sufficiently limited. These include the lands of the Makhzan, that is the domain of the Sherifian Empire, not all of which are as yet available, though within the last year several important tracts have been opened for colonization. Outside of the domanial lands there are the collective lands of the tribes, of which, according to a recent law, portions unrequired may be alienated by the tribal assemblies. At present the chief obstacle to European ownership in Morocco

comes from the traditional system of landed property. In the midst of the extreme complications arising from claims to the same piece of land, it has proved difficult, if not impossible, to verify the title of the would-be vendor. At the same time there has ensued interminable litigation, as there is in the Mohammedan law no provision for the extinction of titles.



FIG. 15—The cedar, "sultan" of the Moroccan forest. Trees three to four hundred years old, 35 to 40 meters in height and 5 to 6 meters in girth, are not rare (Piquet: "Le Maroc," 1917, p. 58). The cedar forests cover great extents of the Middle Atlas at elevations between 1,100 and 2,300 meters.

Since 1913, however, there has been in force a law (*dahir*) instituting a new régime. All existing owners and all new purchasers of land can register their property, that is to say record it in the special land registers (*livres fonciers*). The administration then makes an examination of the property and a definition of its boundaries, operations accompanied by the widest publicity. If no protest is made during the six months follow-



ing registration, the title of the property is assured. If any counterclaim is raised, the tribunal decides between the claimants, and only after decision does the title become valid. Inscription in the land registers annuls all former titles; this is the land statute of the new régime.

### THE FORESTS

The forest resources of Morocco are very important. Three great zones may be distinguished. First there is the zone of the cork oak, which extends over an area of some 250,000 hectares, chiefly along the littoral. The most important forest of this type is the Mamora Forest, occupying 135,000 hectares to the north of Rabat. From the beginning the protectorate has taken measures to preserve these forests against the destructive operations of the natives, who do not use the cork but wastefully strip the tree to reach the underlying layer, from which tannin is extracted. The forest service has further opened ways of communication, dug trenches against fire, and built houses for the foresters. It has commenced a methodical exploitation of the Mamora Forest which, it is estimated, will furnish 100,000 quintals of cork a year.

The next zone, that of the cedar, is still more extensive; but this admirable tree, "sultan" of the Moroccan forest, is found only in the Middle Atlas at an elevation of over 1,300 meters. Not all the territory covered by this forest has been pacified, but the surface already known to be so covered surpasses 300,000 hectares, says M. Augustin Bernard.<sup>6</sup> The cedar forest, tall, green, and sunlit, with its unfamiliar beasts, its singing birds, its abundant waters well stocked with fish, is one of the most beautiful and interesting regions of Morocco. The tourist of the future will there enjoy some of the rarest pleasures that nature affords. These forests of the Atlas, many centuries old, were in great danger of perishing when France established her protectorate. The native woodsmen, for lack of proper implements, were in the habit of setting fire to the base of a tree to bring it down, and thus an entire section of the forest was often sacrificed. The forest service has taken the native woodcutters into its employ. A commencement has been made by disposing of the dead and fallen trees. The exploitation from this category alone has produced more than 3,000 planks (*madriers*) a month.

Lastly there is the zone of the *argan*, occupying over 200,000 hectares of the coast region south of Safi. The *argan*, peculiar to Morocco and the Canaries, appears to be the last vestige of a vanished tropical vegetation.<sup>7</sup> It is valued for its oil-yielding fruit, and its conservation in this arid region is likewise desirable from the point of view of the climatic advantages of a forest cover.

<sup>6</sup> *France-Maroc*, December, 1917. See also Boudy: *Les Forêts du Maroc*, *ibid.*, May, 1919, pp. 113-119.

<sup>7</sup> L. Gentil: *Le Maroc physique*, Paris, 1912, p. 283.

## MINERAL WEALTH

The Moroccan subsoil is still little known. Its reputation of richness in all kinds of mineral wealth came from the notorious Mannesmann brothers, who saw therein a means of drawing German interests to Morocco. In reality serious prospecting has scarcely been possible until the present time, and the mountain regions, where the presence of important deposits may most reasonably be expected, are not all open to free movement. The High Atlas still keeps its secrets; occasional travelers have noted the presence of lead, copper, and zinc; but no definite knowledge exists.



FIG. 16—Tabular cedars in a wood of holm oak, Middle Atlas.

The only positive information that we possess at present relates to the phosphate beds of El-Borudj, at the head of the Tafilelt, analogous to the famous deposits of Gafsa in Tunisia and the valuable Algerian deposits now on the point of exploitation; the manganese deposits of eastern Morocco, exploited during the war; the iron of Camp Boulhaut, near the coast between Casablanca and Rabat, still in the course of investigation; petroleum, of which there are many indications in northern Morocco and to the examination of which a special mission has been detailed. Bituminous schists, salt, gypsum, and slate also exist.

The mining law of Morocco has been in force since January, 1914. Persons of all nations have equal prospecting rights. Each discoverer, of whatever nationality, can be assured of the ownership of his discovery if he obtains from the administration a permit for search. A permit is good

for three years and secures ownership over the area designated by payment of a tax. Before the war an international jurisdiction, the so-called "Arbitral Commission," including representatives of all the interested nations and presided over by a Norwegian magistrate, adjudicated the claims of discoverers. Unfortunately the commission had scarcely begun to operate when the war broke out; hence the disposition of certain claims still remains unsettled. A law recently passed will permit resumption of the work of this commission, with the safeguarding as far as possible of the rights of foreigners who cannot be informed.



FIG. 17—The ruins of Volubilis. Fifteen centuries of "Barbary" have not yet effaced the traces of Roman occupation. Much of the material of Volubilis has been used in the building of Meknes, some distance to the south.

#### PUBLIC HEALTH AND MEDICAL ASSISTANCE

Hygienic and medical aid is the most certain and undoubtedly the most beneficial means of influencing the natives. Not only is it a humanitarian duty; the preservation and physical improvement of the race are also efficacious means of promoting French interests. Notably, the question of labor, vital in the development of new countries, is intimately related to the question of hygiene, especially of infant hygiene. As soon as a new post is established the army physician attached to the post opens a consulting room. He draws thither the native and thence exercises a supervision over the health of the region. As soon as means permit he adds to the consulting room a native infirmary more or less complete according to the importance of the post.

The posts are grouped by regions, and each region possesses its complete sanitary service for the natives, with separate buildings, operating and dressing rooms, kitchens, baths, etc. Some of these establishments have grown into regular modern hospitals, such as the Hôpital Mauchamps at Marrakesh and the Hôpital Cocard at Fez.

The primary element of this organization is the "mobile medical unit,"

a sort of perambulating dispensary, consisting of a physician, two attendants, and four guides with mules. This unit goes everywhere in the mountains, even among the unsubmissive tribes, to visit infected villages and suspected markets. It distributes quinine and gives consultations, dressings, and vaccinations. It is the genuine symbol of French work in Morocco. The work is strongly supported by the protectorate, which has lately introduced the automobile and the *camionnette* ambulance into these medical units.

To these organizations must be added the provisions for the health of

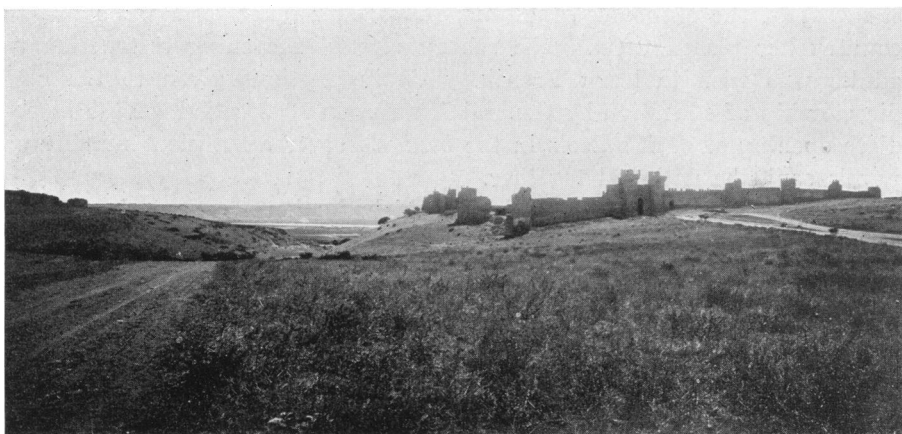


FIG. 18—The ruins of Shella, a "solitude of melancholy charm" (Tissot, *Bull. Soc. Géogr. de Paris*, Vol. 12, 1876, p. 273). Practically nothing remains of the Roman town (Sala Colonia). The present ruins are of the Shella that rose to magnificence in the late twelfth century under El Mansur and was restored and used as a necropolis by the Beni Marin Sultans, since when until very recently Mohammedan fanaticism forbade the place to Europeans.

Europeans—provisions especially important in the towns—in the form of dispensaries and consulting services and hospitals, most commonly connected with the army hospitals.

Prophylactic measures are peculiarly urgent in Morocco, as in all Mohammedan countries, where lack of cleanliness and over-crowding occasion violent epidemics. Their organization and enforcement have been confided to the bureaus of health established in the towns. Particular care has been devoted to the organization of special therapeutic measures against syphilis, malaria, affections of the eye, and the gastro-enteric affections that work such havoc among children. To control syphilis, the curse of the Arab race, five great clinics have been established, and the most modern methods have been applied with a success that has brought them great renown among the natives.

#### EDUCATION

Formerly education in Morocco was of a purely religious character. In the primary schools it was sufficient for the pupils to learn to chant

the Koran by heart. Even the highest education, that given at the Karuyin mosque of Fez, which still plays the rôle of university among the countries of Islam, was based entirely on theology; the sciences had no place, save astronomy; all studies bore directly on the interpretation of the sacred text. France has respected this religious teaching; she has only added to it. For primary instruction there are the Franco-Arabic schools, where the native youth of its own free will comes to learn French, the three R's, and some vocational subjects. The schools in no wise meddle with the religious traditions or customs of Mohammedanism, but they give the scholars some acquaintance with modern commercial methods and an understanding of the economic conditions in which French occupation of the country has placed them. The schools also give evening instruction to adults who wish to learn French. The instructions given to the new directorship of education by General Lyautey in 1913 called for the immediate opening of such schools in the *bled* wherever a sufficient number of pupils could be gathered together.

Today these Franco-Arabic schools, which, furthermore, are always well attended, number nearly a hundred. Some of them, such as the cabinet-making school of Salé and the accounting school of Fez, have almost assumed a professional character.

The secondary instruction established by the protectorate includes the Mohammedan colleges at Fez and Rabat, where the sons of the Moroccan bourgeoisie, previously prepared in special schools, are trained for positions in native administration. The courses of instruction, given in Arabic by professors who are French for the most part, deal with Arabic grammar and literature, the history and geography of Morocco and France, arithmetic, and the usual scientific subjects.

Crowning this organization is the "École Supérieure de Langue Arabe et de Dialectes Berbères" at Rabat, which has become a center of linguistic studies and the training school of European and native administrators.

The advanced instruction given in the Karuyin mosque has not been touched save for an administrative reorganization, which has created a council of professors (*ulemas*), and the furnishing of material resources that were previously lacking.

Quite distinct from the Mohammedan schools are the Jewish schools which had been organized before French occupation by the remarkable efforts of the Universal Hebrew Alliance. These schools, at present thirty-five in number, give instruction in the ordinary subjects and in the French language, a circumstance that has greatly assisted the propagation of French influence.

Europeans also find in Morocco the various grades of primary and secondary instruction that obtain in France: primary schools in the towns, an upper primary at Casablanca, secondary schools for boys at Casablanca and Rabat, and a secondary school for girls at Casablanca.

## ART IN MOROCCO

The liberal spirit of a protectorate is nowhere better attested than in its attitude toward the native arts. Its works of art reveal the truly original character of a race: by its esthetic creation it manifests its vitality.

The Moroccan terrain is strewn with ancient ruins. There are such vestiges of Roman domination as the scattered stones near Meknes that mark the site of Trajan's city of Volubilis. The work of excavation and of recovery of inscriptions was deemed by General Lyautey a labor not

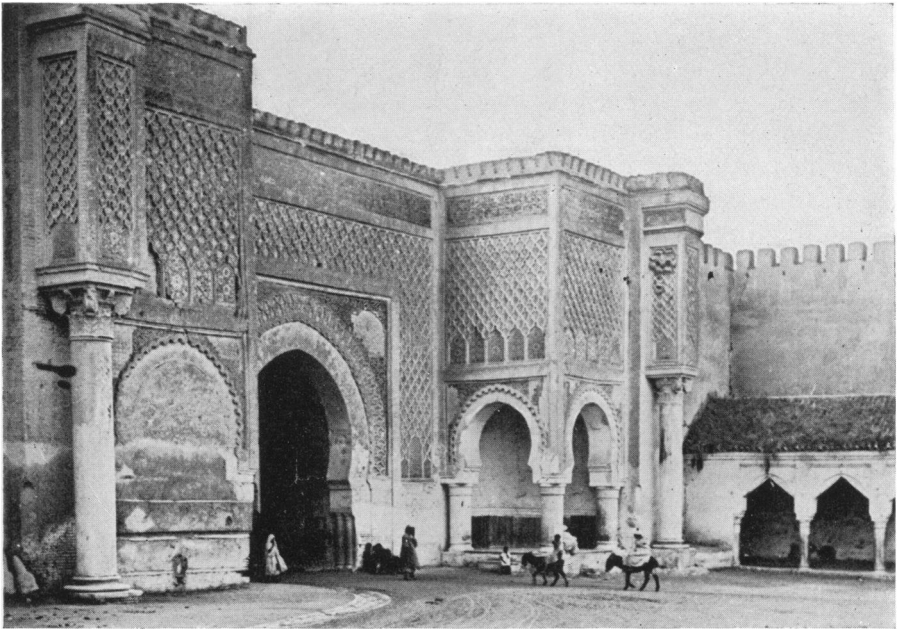


FIG. 19—Bab-el-Mansur, the gate of Mansur, is one of the most imposing monuments of Meknes. The ornamentation is in brilliant faience; the marble columns are of material probably brought from Volubilis.

unworthy of soldiers, even in war time; and on this task German prisoners especially were employed.

Moroccan art proper begins with the dynasty of the Almohades in the second half of the twelfth century. Monuments of their rich but restrained art survive in the three slender carved towers, the admiration of all artists—the tower of Hassan at Rabat, the Kutubiya at Marrakesh, and the Giralda of Seville. Under the Merinides (Beni Marin) Moroccan art attained its apogee. Their style, richer and more elegant than the art of their predecessors, is preserved in the incomparable monuments of the *medersas*, or colleges of the students, of Fez. In the *medersas* a supreme artistic effort has been realized in the resplendent interiors, where are found united all the resources of the minor arts of ornamentation, of

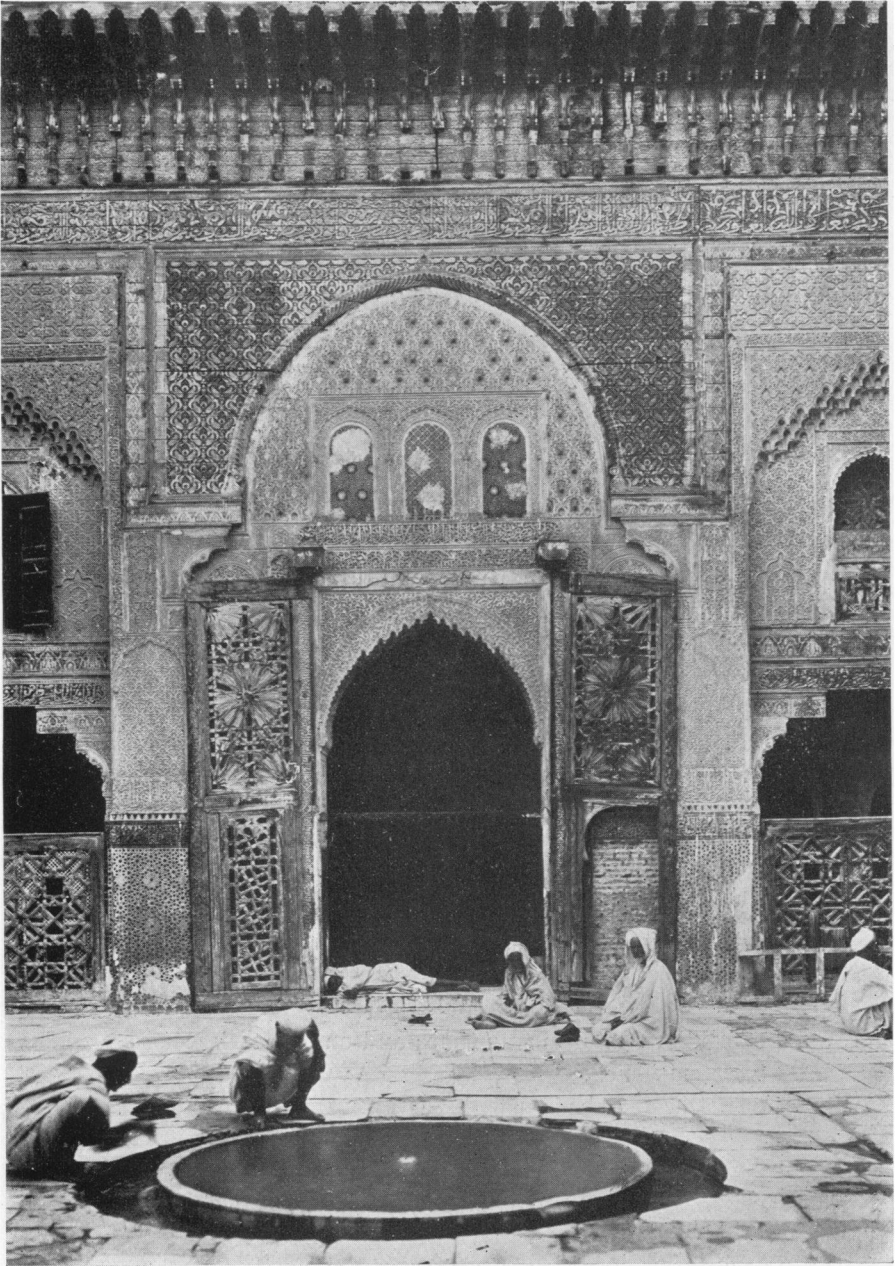


FIG. 20—Court of the *medersa* (college of students) Buananiya at Fez, an eloquent expression of the Moorish art of ornamentation.

mosaic, and of stucco. These monuments, previously unknown to students of art, were discovered five years ago in a discouragingly ruinous condi-

tion; the *zelliges*, or mosaics, of the Middle Ages were half gone; the stuccos and wood inlays were crumbling to dust.

The first care was to see whether there still existed in Fez any artisans who preserved the old traditions. Happily such were found. France took them into her service, putting them under the direction of authorities well

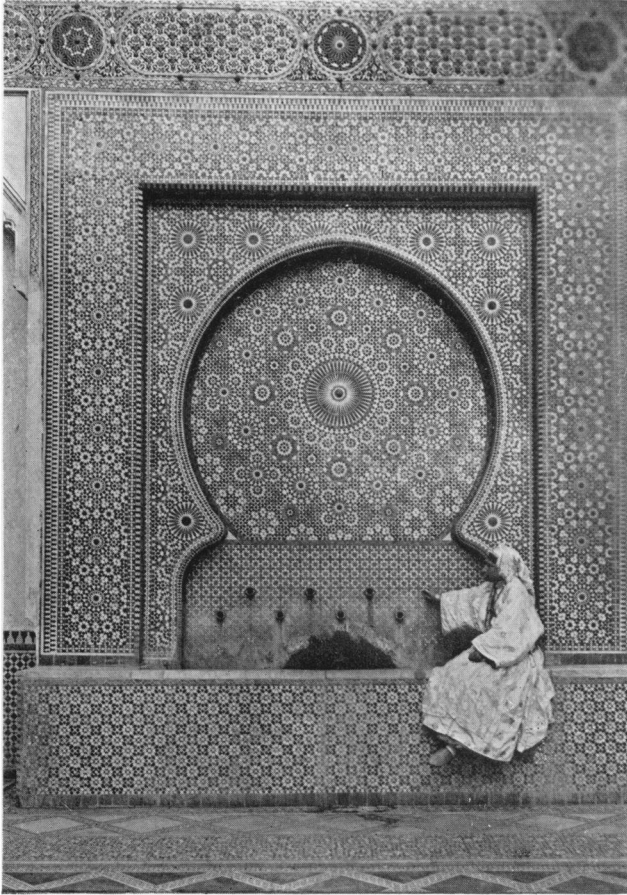


FIG. 21—A fountain in Fez.

acquainted with the beautiful models of Arab art. She also assured them pupils and charged them with reviving traditions fast being forgotten; thus she has been able to restore monuments of an art which by reason of Arab indolence would have perished in another fifty years.

These monuments, these artistic traditions still revealed in the mosques, the palace, and private dwellings give the towns of Morocco, particularly Fez and Marrakesh, a special attraction for the tourist. There, among these medieval crafts, customs, and political organizations, one is trans-



ported back to the Middle Ages. Morocco is one of the few countries of the world which has not been touched by modern civilization until recent years.

Besides the artistic beauty of the towns and the picturesqueness of the extraordinarily intense life circulating in their narrow, crooked streets,

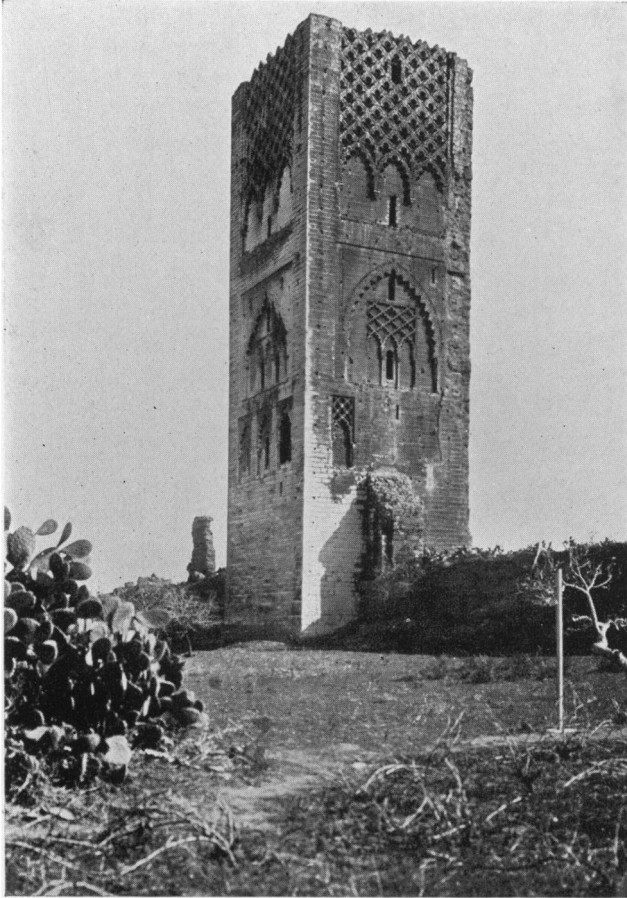


FIG. 22—The tower of Hassan outside Rabat. Town and tower were built by the Sultan El Mansur. The tower, 45 meters high, beautifully ornamented with fretted stone work, is sister to the towers of Giralda at Seville and Kutubiya at Marrakesh. They survive as admirable examples of early Moorish art.

Morocco possesses the potent attraction of the *bled* and of the desert with its far horizon, the luxuriant palm groves, the beautiful gardens of Marrakesh and Sefru, and not least the great cedar forests of the Atlas. These forests General Lyautey has decided to set apart as a national park, after the fashion of the United States.

## SUMMARY AND CONCLUSION

The rapid development of French Morocco in spite of the war is shown by the annual statistics. The figures for the combined import and export movement are:

1911.....	139,698,000	frances
1912.....	177,737,000	“
1913.....	221,607,000	“
1914.....	163,999,000	“
1915.....	235,940,000	“
1916.....	310,854,000	“

A faithful mirror of prosperity is seen in the finances of the country. The Moroccan budget shows a growth unique in French colonial history.

	<i>Expenditure</i>	<i>Receipts</i>
1913-1914.....	21,663,000 frances	15,925,000 frances
1914-1915.....	29,255,000 “	21,776,000 “
1915-1916.....	38,925,000 “	46,086,000 “
1916-1917.....	32,153,000 “	58,485,000 “

How can this growth be explained? The writer does not hesitate to say that it is because France has entrusted the country to a man of courage and vision. Timidity and economic parsimony have hindered her colonial policy in the past. To his office General Lyautey has brought something of the spirit of the Roman proconsuls who, looking to the future, built with celerity an enduring edifice.

To start Morocco on its future career General Lyautey has provided a port adequate for the maximum demands, roads and railways equal to the requirements of a large traffic, plans for extension of the great cities to be executed as need arises. To save the country during the crisis of the war he has not hesitated to engage the funds of the Moroccan loan and to multiply the public works, schools, hospitals, administrative and military buildings. And in the midst of the war he has ventured commercial undertakings, expositions, and fairs whose example has been followed by Paris and Lyons.

Such lavish expenditure is in reality economic wisdom. The millions of the Moroccan loan expended to save the country during the war are all to the advantage of its future development. Is it not a profitable sacrifice that results in the sparing of immense resources, the conservation of valuable properties for which France is responsible? General Lyautey's policy, furthermore, has enabled Morocco to make direct contribution to the national defense of over 30,000 native soldiers and several million tons of wheat, maize, and sorghum, without counting wool, hides, and skins.

Yet, however bold and optimistic this method, it would be open to failure if not based on a deep and essential liberalism. The secret of French influence in Morocco and of France's policy with the natives lies in the constant effort to approach the native spirit, in scrupulous regard for the native

beliefs, manners, and customs. The sincerest homage to France's liberalism is rendered by the people of Morocco themselves, who, once having accepted her tutelage, have no desire to withdraw from it but continue to accept of their own free will the intervention of which they were formerly defiant. Once won over to peace and put in the way of profitable trade, they have no desire to return to their former warlike and poverty-stricken life.

This implies that respect for native tradition does not exclude introduction of changes necessary to put this people in the way of modern life. To introduce new methods appeal must be made for co-operation on the part of the natives. In whatever is done in the way of agricultural development, colonization, public work of any sort the native must be associated with the government to mutual advantage. Such collaboration, the final goal of French policy in the protectorate, is likewise the object of certain recent reforms in Algeria.

The conception was nobly expressed by General Lyautey on a recent occasion, the obsequies of Colonel Berriau, one of the chief builders of this policy :

He was not one who looked back: his gaze, prudent and wise, was on the future. This country, whereon we have so prodigally lavished our blood and our gold, was to him no field of exploitation, no reservoir of resources to be merely tapped for our benefit. In his regard this people, who have given such proofs of loyalty and of devotion, who bring such qualities of intelligence and service, have an unalienable right to participation in all its benefits. And this, the doctrine of the protectorate, is the political and social doctrine of the highest morality—the rights of all peoples, of which today we are the standard bearer for the world.